

Drawings

The Office Action states that "Figure 1 & 2 should be designated by a legend such as -- Prior Art -- because only that which is old is illustrated." Figures 1 & 2 have been amended to include the legend -- Prior Art -- and are attached herewith with the amendments made in red along with a copy.

The 35 U.S.C. § 103 Rejection

Claims 1-8 and 12-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Zhang et al.* (U.S. Patent No. 6,119,160) in view of *Lemaire et al.* (U.S. Patent No. 6,205,149). The rejection is respectfully traversed.

According to M.P.E.P. § 2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

Claim 1

Claim 1 of the claimed invention provides for "setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user." As stated in the Specification, the "present invention makes use of a user's service profile." (Specification, page 7, line 11). The present invention implements "a 'Quality of Service' or QoS policy so as to give priority to certain types of traffic and/or customers so as not to drop their packets, thus assuring that critical communications are able to pass through the data communications network and/or providing a guaranteed service level, albeit at the expense of less critical communications." (Page 3, lines 6-11).

As stated in the Office Action, "Zhang fails to teach setting the QoS bits accordance with the QoS level for the user. Lemaire teaches setting the QoS variables for data units that are associated with a flow (col. 1, lines 45-67), for guarantee the quality of service and connection to the user." Applicant respectfully disagrees.

Upon a closer review of *Lemaire et al.*, including this specific citation, there are subtle but important distinctions between *Lemaire et al.* and the present invention. Specifically,

- *Lemaire et al.* does not teach setting any QoS bits in accordance with the QoS level for the user.
- *Lemaire et al.* teaches a method to "return a QoS enable bit. When set, the QoS enable bit indicates that the QoS information in the Cache is valid. When not set the QoS enable bit indicates that the frame is not actually associated with a flow, even though the result flow=TRUE was reached in step 83. When flow=TRUE and the QoS enable bit indicates that the frame is not actually associated with a flow, the frame is processed as a non-flow frame." (Col. 5, lines 13-21). *Lemaire et al.* defines the flow as "a one way connection of frames with positively identified Source Address and Destination Address." (Col. 4, lines 32-33).

This distinction may be clearly seen, for example, in claim 1 of *Lemaire et al.*, where the method provides for "determining if said received Ethernet frame includes both positively identified source and destination addresses, wherein said determining if said received Ethernet frame includes both positively identified source and destination addresses includes comparing a unique identifier with a first portion of said destination address selected from the header, wherein said unique identifier is associated with the bridge/router, and comparing a second portion of the destination address with a predetermined range of values in the event that the unique identifier matches the first portion of the destination address" (Col. 21, lines 62-64).

The Office Action cites Lemaire et al. as stating that the "QoS variable is employed to prioritize the data unit for processing." (Col. 1, lines 52-53). However, as explained above, the prioritization of data for processing is merely to determine whether the packets are part of a flow. Lemaire et al. merely teaches the return of a QoS enable bit to determine whether the packets are part of a "flow" and does not teach the setting of QoS bits in accordance with the QoS level for the user to give priority to certain types of traffic and/or customers so as not to drop their packets.

Thus, *Lemaire et al.* does not teach "setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user" as provided in the present claims. Specifically, *Lemaire et al.* does not teach setting any QoS bits based upon the QoS level for the user as explicitly required by the claim.

### Claim 3

Claim 3 provides for "using said Quality of Service field to set the QoS bits within said packets transmitted by the user." As stated in the Office Action, "Zhang fails to teach the user service profile including a Quality of Service field and using the Quality of Service field to set QoS bits within the packets transmitted by the user. Lemaire teaches the user service profile including a Quality of Service Field (col. 1, lines 35-37) and using the Quality of Service field to set QoS bits within packets transmitted by the user (col. 1, lines 45-67) for protection and guarantee of connection for user."

The same arguments as set forth above are equally applicable here. *Lemaire et al.* does not teach "setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user" as provided in the present claims. Specifically, *Lemaire et al.* does not teach setting any QoS bits based upon the QoS level for the user as explicitly required by the claim.

Claim 5

Claim 5 provides for "setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level." As stated in the Office Action, "Zhang fails to teach setting the QoS bits and assigning a particular Quality of Service level to at least one packet flow transmitted by the user within packets belonging to the at least one packet flow received at the service selection gateway in accordance with the Quality of Service level. Lemaire teaches setting the QoS variables for data units that are associated with a flow (col. 1, lines 45-67) for controlling protecting in the communication and guarantee the service for the user."

The same arguments as set forth above are equally applicable here. *Lemaire et al.* does not teach "setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user" as provided in the present claims. Specifically, *Lemaire et al.* does not teach setting any QoS bits based upon the QoS level for the user as explicitly required by the claim.

Claims 12 and 19

Claim 12 provides for "a packet modifier associated with said SSG, said packet modifier modifying the QoS bits of packets sent by the user to reflect the QoS level received for the user from the AAA server." Claim 9 provides for "a packet modifier associated with said SSG, responsive to a QoS request by the user; setting a QoS bit field of packets sent by the user to the data communications network via the SSG." As stated in the Office Action, "Zhang fails to teach setting the QoS bits of packets. Lemaire teaches setting the QoS variables for data units

that are associated with a flow (col. 1, lines 45-67) for guarantee the quality of service and connection to the user."

The arguments set forth above are equally applicable here. *Lemaire et al.* does not teach "setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user" as provided in the present claims. Specifically, *Lemaire et al.* does not teach setting any QoS bits based upon the QoS level for the user as explicitly required by the claim.

Given these differences, the cited prior art can not be said to render the claimed invention obvious. In view of the above, it is respectfully asserted that the claims are now in condition for allowance.

#### Remaining Dependent Claims

All other dependent claims depend from claims 1, 3, 5, 12, and 19 and thus include the limitations of the corresponding base claim. The base claims being allowable, the dependent claims must also be allowable.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

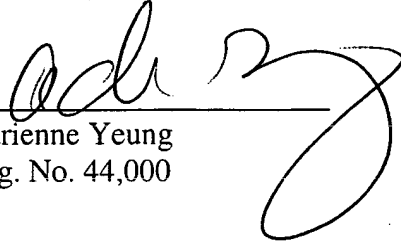
#### Request for Allowance

In view of the foregoing, reconsideration and an early allowance of this application are earnestly solicited.

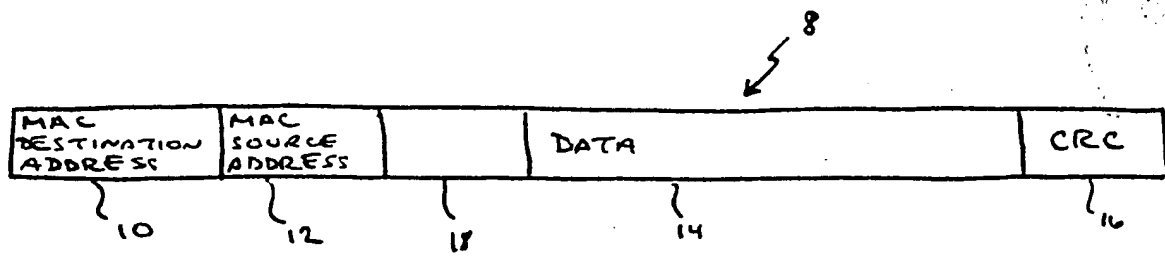
If any matters remain which could be resolved in a telephone interview between the Examiner and the undersigned, the Examiner is invited to call the undersigned attorney to expedite resolution of any such matters.

Respectfully submitted,  
THELEN, REID, & PRIEST LLP

Dated: May 30, 2002

  
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CISCO-0650FIG. 1A

(Prior Art)

Byte 0		Byte 1		Byte 2		Byte 3			
4-bit version	4-bit hd len	TOS value <u>26</u>		13_ len (in bytes)					
16-bit identification				3-bit flags	13-bit fragment offset				
<u>TTL</u>		prot_typ <u>28</u>		.csum					
Source IP address						<u>30</u>			
Dest IP address						<u>32</u>			
Options (if any)									
Source port number <u>34</u>				Dest port number <u>36</u>				TCP/UDP only	
32 bit sequence number									
32 bit acknowledge number									
4-bit hll	Reserved (6 bits)	u g	a c	p k	r n	s t	f y	16 bit window size	TCP only
16 bit TCP checksum				16 bit urgent pointer					

FIG. 1B

(Prior Art)



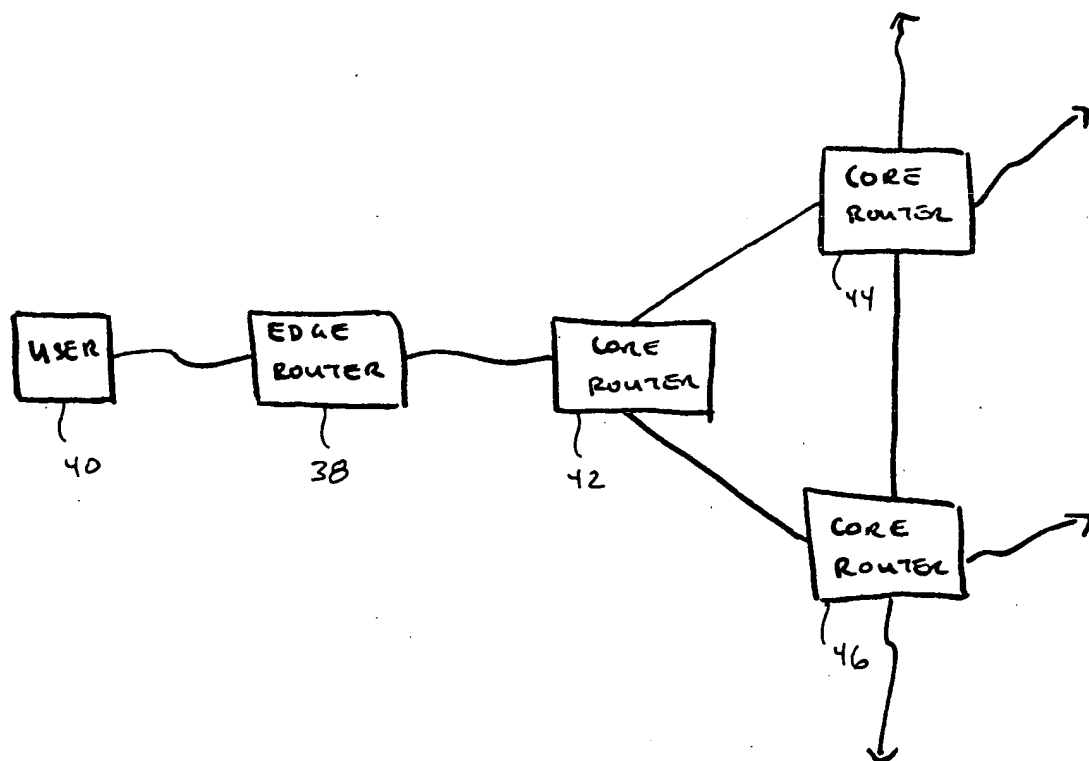


FIG. 2

(Prior Art)